

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-17 are pending, Claims, 1, 5-9 and 11-15 having been amended, and Claims 16 and 17 having been added by way of the present amendment.

In the outstanding Office Action Claims 1 and 4-15 were rejected under the judicially created doctrine of obviousness-type double patenting over U.S. Patent No. 6,695,477; and Claims 1 and 4-15 were rejected as being unpatentable over Yamamoto et al. (U.S. Patent No. 5,056,145, hereinafter "Yamamoto") in view of Esteban et al. (U.S. Patent No. 4,455,649, hereinafter "Esteban").

Applicants respectfully request that the double patenting rejection be either withdrawn or held in abeyance in view of the present amendment to the pending claims. As prosecution for this application is not yet completed, it is requested that, at best, the filing of a terminal disclaimer to overcome the rejection, is premature.

Claim 1 has been amended, consistent with §112, second paragraph, and to avoid an interpretation under 35 U.S.C. §112, sixth paragraph. Otherwise, it is believed that amended Claim 1 (and as defined before the amendment) patentably defines over Yamamoto in view of Esteban.

Claim 1 is directed to a portable audio signal recording and reproducing apparatus. It includes a memory unit that stores compressed audio data that was compressed via high-efficiency compression processing; a decoder that decodes the compressed data; a D/A converter that converts the decoded output signal into at least one analog signal; and first and second headphone driven units configured to receive the at least one audio signal and produce left and right audio channel sounds. Finally, the apparatus includes an input unit that has a

plurality of user-actuated interfaces that respectively trigger different functions when actuated.

The outstanding Office Action asserts that Yamamoto discloses all of the elements of Claim 1, except for the inclusion of signal compression and decompression of stereo audio data using a high efficiency compression method. As recognized in the outstanding Office Action, Yamamoto is directed to a digital sound data storing device that operates in mono (not stereo) and does not store compressed files nor decompress the compressed file. Furthermore, Yamamoto has as its main objective, to record speech and then reproduce the speech data stored in each of the IC memories (see e.g. column 5, lines 7 and 36-37). The IC memory stores a plurality of different digitized speech data groups, which are each assigned addresses (see e.g. Fig. 3 and specification, column 4, lines 2-6).

Esteban describes an apparatus that uses statistics for multiplexing voice and data signals onto common communication channels. As shown in Fig. 4, for example, a number of different analog sources (301-309) are provided to a carrier or private public branch exchange PBX 335. Such signals may be made to bypass the split-band encoding that is implemented in the gateway 310 (see e.g. column 10, lines 53-55). However, when subject to split-band encoding, each of the sub-bands are subject to a bit capacity allocation process (see e.g. column 7, lines 53-65 and column 8, generally). An advantage of this encoding technique is that extra available bits (residual bits), may be used to transmit data traffic (see e.g. column 15, lines 51-53). In this way, as seen in Fig. 5, the unused capacity of a communication line may be augmented with packets of data (such as through an X.25 network) so that a higher capacity may be used for both digitized voice and data. It is a main objective in Esteban to provide this multiplexer operation so a device that has a limited number of ports may nevertheless be able to more greatly use the capacity of the different communication lines to which it is connected (see e.g. Abstract, and column 9, lines 61-68).

In order to make it a *prima facie* case of obviousness, the outstanding Office Action is required to satisfy three requirements: (1) all of the elements of the claim must be found in the references or general knowledge of one of ordinary skill in the art; (2) there must be a reasonable expectation of success; and (3) there must be a motivation to combine the references in the references or knowledge of one of ordinary skill in the art.

It is respectfully submitted that the Office Action fails on two of these elements. First, the purported motivation to combine the compression/decompression technique of Esteban with the portable audio signal reproducing device of Yamamoto is “in order to improve data communication and processing efficiency for the reproducing apparatus”. However, Yamamoto’s apparatus does not have data communication capabilities. Thus, there is no motivation to improve it. Furthermore, there would be no motivation to provide any data communication capability in the voice recorder/reproducing device of Yamamoto since recording/playing back is its primary function.

Furthermore, the complex split-band processing techniques described in Esteban would degrade the processing efficiency in Yamamoto, not enhance it. Esteban explains that to perform some of the signal processing requires “several commercially available signal processors and some high performance microprocessors” (column 9, lines 33-36). Therefore, including the algorithm from Esteban would only increase the processing demand in Yamamoto. Yamamoto has no reasonable need to use statistical multiplexing algorithm of Esteban, since the device in Yamamoto is dedicated for a single user and does not require a multiplexing capability.

Also, there would be no reasonable expectation for success to combine Esteban with Yamamoto. Esteban describes a method and apparatus for statistical multiplexing of voice and data signals. This is simply not needed in Yamamoto. Yamamoto is directed to a device that records and plays back voice and audio data. It would be counter productive to multiplex

voice and data signals in a simple device like Yamamoto which has no relation to a PBX or to make a PBX more efficient. Furthermore, Esteban describes the need for filters, signal processors and microprocessors, and it is doubtful that these components could reasonably fit within the housing used in Yamamoto. Therefore, it is respectfully submitted that no matter how Yamamoto and Esteban are combined, the combination does not teach or suggest all of the features of amended Claim 1. Although of differing statutory class, and or scope, it is respectfully submitted that Claims 4-17, as amended, also patentably define over the asserted prior art for substantially the same reasons as described above with regard to Claim 1.

Claim 9 further includes features absent in the prior art, such as the storing of 15 minutes of audio data. New Claim 17 is similar to amended Claim 1, but includes headphone driven units each configured to produce at least one of left and right audio channels. This feature is also absent in the asserted prior art.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-17, as amended, is patentably distinguishing over the prior art. The present application is therefore believed to be in condition for formal allowance and an early and favorable decision to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Bradley D. Lytle
Attorney of Record
Registration No. 40,073

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

BDL/maj
I:\ATTY\BDL\277923US\277923US.AM_112905.doc